

# If You Build It, They Will Come

“It must be remembered that the purpose of education is not to fill the minds of students with facts . . . it is to teach them to think.”  
Robert Hulchins



## Go BIG!!!

You don't need board games or expensive equipment to play games. Have you ever thought about having the students make their own version of their favorite games? For example playing Guess Who, Twister, Battleship and Foosball? You can set the field for students or allow them to set up the games and parameters on their own.

How about having students do inquiry and project based activities. These activities allow students to learn on their own terms, explore through trial and error, and create something they can be really proud of. Some examples are building roller coasters, making a Rube Goldberg experiment, and designing/building an indoor miniature golf course. This is especially great for older students who enjoy more freedom and open exploration. Project based resources: Buck Institute: <http://www.bie.org/>, online resource: <http://www.thinkfinity.org/afterschool>

Instant Challenges are also another fun way to put learning in the students hands. There are both performance and task based challenges to get your students minds engaged.

## Resources

### Building Challenges:

Design It (Kelvin)

NPASS

<http://npass2.edc.org/>

Explore It! (Kelvin)

Design Squad, Fetch, ZOOM (PBS)

Exploratorium:

<http://www.exploratorium.edu/structures/>

### Rube Goldberg Resources:

<http://www.youtube.com/watch?v=qybUFnY7Y8w>

<http://inhabitat.com/top-6-amazing-rube-goldberg-machines/>

### Instant Challenges:

Destination Imagination

[www.idodi.org/](http://www.idodi.org/)

<http://mysite.verizon.net/vze2z83j/ic/>



## Miniature Golf Course, Roller Coasters and Amusement Parks brought right to you...

Miniature golf is a classic game that is enjoyed by students of all ages. Try dividing students up into teams. Each team will make one hole for a miniature golf course. Set out supplies and recyclables and challenge students to be innovative in their design. After each team has completed their hole, allow students to try out the entire course. This is sure to be a crowd pleaser.

Students can learn some basic aerodynamic and engineering concepts as they design, build, test their own amusement rides. I.e. give students foam insulation tubing, tape, and marbles to create their own roller coasters. Students will learn vital 21<sup>st</sup> century skills as they build, test, and make alterations to coasters. To amp up the fun, allow students to decorate their roller coasters. Add carts with passengers, pipe cleaners for tunnels of fire, water features, etc. The ideas are endless and students will impress you with their creativity. Don't stop at rollercoasters, make an entire amusement park; i.e. Ferris wheels, merry go rounds, and more.

These activities are very inexpensive. With a few specifics, most supplies will consist of tape, recyclables, and exciting furniture and spaces.



### Rube Goldberg Inventions

Learn about Newton's laws of motion by taking part in a Rube Goldberg invention; an overdone "machine" that performs a simple task in a complex manner usually by making a chain reaction of smaller components.

Set an end result, offer an array of supplies and recyclables, and let students build their invention through trial and error. Possible end results could be making a chemical reaction, putting toothpaste on a toothbrush, etc.



Students trying out a spray painted twister board outdoors. We made a large spinning board to go along with the field. As the number of students decreased we set limitations on the size of the twister board to keep the game challenging.

## Enlarging Board Games

What are some of your students favorite games? Have you ever considered having your students become the pieces of the game? For example, playing chess with each student being a pawn, knight, etc. How about each student filling in for a character in Guess Who. Setting up a giant battleship where students form groups to make up the ships. Playing scrabble or practicing spelling words with 8x11 sheets of lettered cardboard. The ideas are endless.

How about taking a classic game and enlarging it. For example taking twister and making the board 4 times larger to accommodate more students. Playing foosball by attaching students together to form the lines and playing in an enclosed area such as a wrestling room.